

Claims

1. A method for the preparation of sodium percarbonate granules having enhanced stability, comprising modifying the surface of the sodium percarbonate granules by means of a surface reaction between sodium percarbonate and carbon dioxide or bicarbonate species to form a dense solid film of essentially sodium bicarbonate on the surface of the sodium percarbonate granules, **characterized** in that
- 5 a) carbon dioxide is dissolved in water to form an aqueous solution containing dissolved carbon dioxide and bicarbonate,
- 10 b) the surface of the sodium percarbonate granules is exposed to a spray of said aqueous solution containing dissolved carbon dioxide and bicarbonate, to form said solid film of essentially sodium bicarbonate, and subsequently
- 15 c) the residual fluid is removed from the surface.
2. A method according to claim 1, **characterized** in that the carbon dioxide is dissolved in water in a two-way nozzle to form the spray of said aqueous solution containing dissolved carbon dioxide.
- 15 3. A method according to claim 1, **characterized** in that the carbon dioxide is dissolved in water in a premixing tank.
- 20 4. A method according to claim 1, **characterized** in that the carbon dioxide is dissolved in water inside a guiding line tube wherein the carbon dioxide gas and water are injected.
- 25 5. A method according to any of claims 1 to 4, **characterized** in that the content of carbon dioxide in the aqueous solution to be sprayed is at least 0.25% by weight.
- 25 6. A method according to any of claims 1 to 5, **characterized** in that the surface of the sodium percarbonate granules is exposed to said spray for a period of from 0.5 to 15 minutes.
- 30 7. A method according to any of claims 1 to 6, **characterized** in that the thickness of said film is less than 100 nm.
- 30 8. A method according to any of claims 1 to 7, **characterized** in that the method additionally comprises repeating steps a) to c) from one to ten times to increase the thickness of the film by creating multiple layers.

9. A method according to any of claims 1 to 8, **characterized** in that the method is carried out in a fluidized bed reactor comprising a step of spraying said aqueous solution containing dissolved carbon dioxide inside the fluidized bed from a spray nozzle inside the fluidized bed reactor.
- 5 10. A method according to any of claims 1 to 9, **characterized** in that the method additionally comprises depositing an additional coating layer on top of said film of sodium bicarbonate, said additional coating layer comprising sodium sulphate, soda, sodium bicarbonate, a mixture of sodium sulphate and lithium sulphate, a mixture of soda and sodium sulphate, a mixture of a metal sulphate and a polymer or a
10 polymer.
11. Sodium percarbonate granules prepared according to the method of any of claims 1 to 10.
12. Use of sodium percarbonate granules of claim 11 in detergents, especially in detergents containing zeolite.